

## 2. Bartek

**Program Name:** Bartek.java

**Input File:** bartek.dat

Bartek loves to write programs that generate ASCII patterns, but sometimes finds them quite challenging. Here's a good one he tried recently! Given an integer N, he prints an octagon whose sides are of length N.

How you solve this problem - brute force or dynamic/elegant - is up to you.

**Input:** Several integers N ( $1 < N \leq 10$ ), all on one line, separated by single spaces.

**Output:** For each integer N, print a size N octagon, made up of stars, as shown below, each output aligned on the left edge, and no blank lines between outputs.

**Sample input:**

2 3 4

**Sample output:**

```

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*  *
*  *
**
***
*  *
*  *
*  *
*  *
***
****
*  *
*  *
*  *
*  *
*  *
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```